

ORDINANCE NO. _____

1 AN ORDINANCE amending Title 26 of the Lincoln Municipal Code by creating a
2 new Chapter 26.25, Flood Regulations for New Growth Areas.

3 BE IT ORDAINED by the City Council of the City of Lincoln, Nebraska:

4 Section 1. That Title 26 of the Lincoln Municipal Code be amended by adding a new
5 section numbered 26.25.010 to read as follows:

6 **26.25.010 Definitions.**

7 For the purpose of this chapter, certain terms and words are hereby defined:

8 **2-Year Flood** shall mean the flood having a fifty percent chance of being equaled or
9 exceeded in any given year.

10 **10-Year Flood** shall mean the flood having a ten percent chance of being equaled or
11 exceeded in any given year.

12 **100-Year Flood** shall mean the flood having a one percent chance of being equaled or
13 exceeded in any given year.

14 **Base Flood** shall mean the flood having a one percent chance of being equaled or exceeded
15 in any given year.

16 **Basement** shall mean any enclosed area having its floor below grade level on all sides.

17 **Compensatory Storage** shall mean replacement of storage volume that is hydrologically
18 equivalent to lost storage when encroachment occurs in the floodplain or floodprone area.

1 Development shall mean any man-made change to improved or unimproved real estate,
2 including but not limited to, buildings or other structures, mining, dredging, filling, grading, paving,
3 excavation or drilling operations, or storage of equipment or materials.

4 FEMA shall mean the Federal Emergency Management Agency.

5 Flood Design Criteria shall mean Chapter 10 of the City of Lincoln Drainage Criteria
6 Manual, adopted on February 22, 2000 by Resolution No. A-80038, as amended.

7 Flood Fringe shall mean that portion of the FEMA-mapped floodplain outside of the
8 Floodway.

9 Flood Insurance Rate Map (FIRM) shall mean the September 21, 2001 Flood Insurance
10 Rate Map and any revisions thereto, on which FEMA has delineated both the areas of special flood
11 hazards and the risk premium zones applicable to the community.

12 Flood Insurance Study shall mean the Flood Insurance Study for Lancaster County,
13 Nebraska and Incorporated Areas published by FEMA in conjunction with the FIRM and containing
14 background data such as base flood discharges and water surface elevations used to prepare the
15 FIRM.

16 Floodplain shall mean those lands which are subject to a one percent or greater chance of
17 flooding in any given year as shown on the Flood Insurance Rate Map issued by FEMA for Lancaster
18 County, Nebraska and incorporated areas, as amended. Copies of the said maps shall be on file in
19 the Department of Building and Safety.

20 Floodprone area shall mean those lands subject to a one percent or greater chance of
21 flooding in any given year, as determined by hydrologic and hydraulic studies completed by the City

1 or other government agency, or other acceptable source as approved by the City where this is the best
2 available information.

3 **Floodproofing** shall mean any combination of structural and nonstructural additions,
4 changes, or adjustments to structures which reduce or eliminate flood damage to real estate or
5 improved real property, water and sanitary facilities, structures and their contents.

6 **Floodway** shall mean the channel of a river or other watercourses and the adjacent land areas
7 that must be reserved in order to discharge the base flood without cumulatively increasing the water
8 surface elevation more than one foot.

9 **Letter of Map Change (LOMC)** shall mean a determination document issued by FEMA
10 that officially revises the FIRM based on updated information, whether improved data or topography
11 changes created by fill placement. Includes Letter of Map Amendment (LOMA), Letter of Map
12 Revision (LOMR), and Letter of Map Revision based on Fill (LOMR-f).

13 **Lowest floor** shall mean the lowest floor of the lowest enclosed area (including basement).
14 An unfinished or flood-resistant enclosure, usable solely for parking of vehicles or building access,
15 in an area other than a basement area is not considered a building's lowest floor; provided that such
16 enclosure is not built so as to render the structure in violation of the applicable non-elevation design
17 requirements of this ordinance.

18 **Minimum Flood Corridor** shall mean the existing channel bottom width plus 60 feet plus
19 six times the channel depth and the corridor will be centered on the channel, as shown in Figure 1
20 below, or aligned such that the corridor follows the natural flow of flood waters.

21 For streams with a defined bed and bank which drain less than 150 acres, minimum flood
22 corridor shall mean a narrower corridor proportionate to the drainage area as identified in the City
23 of Lincoln Design Standards.

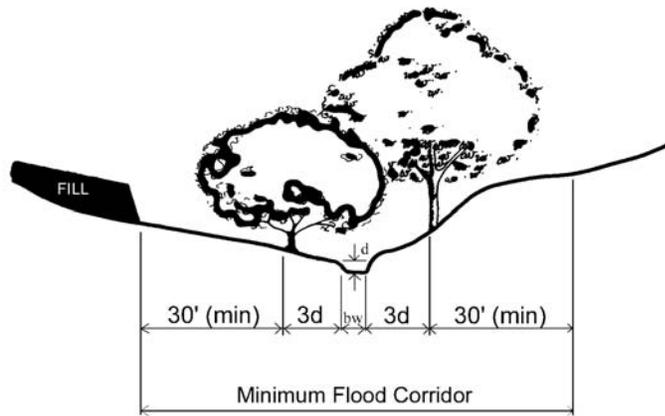


Figure 1 - Minimum Flood Corridor

NAVD shall mean the North American Vertical Datum of 1988.

New Growth Areas shall mean those areas outside the corporate limits of the City of Lincoln and zoned AG Agriculture and AGR Agricultural Residential on the effective date of this ordinance.

Non-substantial improvement shall mean any improvement that does not meet the definition of substantial improvement, as defined in this section.

Qualified engineer shall mean a registered professional engineer who, by reason of training and experience, is considered knowledgeable in hydrology and hydraulics and their application to the flood insurance study and has demonstrated competence to the satisfaction of the Director of Public Works and Utilities.

Special Flood Hazard Area shall mean the land in the floodplain subject to a one percent or greater chance of flooding in any given year.

Start of construction shall mean either the first placement of permanent construction of a structure on a site, such as the pouring of slabs or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it

1 include excavation for a basement, footings, piers or foundations or the erection of temporary forms;
2 nor does it include the installation on the property of accessory buildings, such as garages or sheds
3 not occupied as dwelling units or not as part of the main structure. For a substantial improvement,
4 the actual start of construction shall mean the first alteration of any wall, ceiling, floor, or other
5 structural part of a building, whether or not that alteration affects the external dimension of the
6 building.

7 **Substantial improvement** shall mean any reconstruction, rehabilitation, addition, or other
8 improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of
9 the structure before the start of construction of the improvement. Substantial improvement shall
10 include structures which have incurred substantial damage, regardless of the actual repair work
11 performed. The term shall not, however, include either (i) any project for improvement of a structure
12 to correct existing violations of state or local health, sanitary, or safety code specifications which
13 have been identified by the local code enforcement official and which are the minimum necessary
14 to assure safe living conditions, or (ii) any alteration of a historic structure, provided that the
15 alteration will not preclude the structure's continued designation of a historic structure.

16 **Variance** shall mean a grant of relief from the terms of a floodplain management regulation,
17 this shall be done by Special Permit in accordance with Section 27.53.060 of the Zoning Code.

18 **Violation** shall mean the failure of a structure or other development to be fully compliant
19 with the floodplain management regulations as set forth in this chapter. A structure or other
20 development without the elevation certificate, other certifications, or other evidence of compliance
21 as required is presumed to be in violation until such time as that documentation is provided.

1 Watershed Master Plan shall mean a plan generated by the City or by the City in
2 cooperation with other agencies, which includes hydrologic and hydraulic modeling for the 100-year
3 event, including 100-year floodplain elevation and limits.

4 Section 2. That Title 26 of the Lincoln Municipal Code be amended by adding a new
5 section numbered 26.25.020 to read as follows:

6 **26.25.020 Flood Regulations for Development in New Growth Areas.**

7 There shall be no platting or subdivision of land allowed by the city within a floodplain or
8 floodprone area unless the following conditions are met:

9 (a) The development of any land located within the floodway shall:

10 (1) Be accomplished in conformance with the Flood Design Criteria.

11 (2) Cause no increase in the water surface elevation of the 100-year flood.

12 (b) The development of any land located within the floodplain or floodprone area outside
13 the floodway, except as provided in Section 10.2 of the Flood Design Criteria, shall:

14 (1) Be accomplished in conformance with the Flood Design Criteria.

15 (2) Cause no greater than five hundredths of a foot (0.05') of rise in the 100-year flood
16 elevation.

17 (3) Cause no greater than five hundredths of a foot (0.05') of rise in areas with a watershed
18 master plan for the 2-, 10-, and 100-year flood elevations, as demonstrated using the hydraulic model
19 from the watershed master plan.

20 (4) Notwithstanding certain exceptions in the Flood Design Criteria allowing for greater
21 than five hundredths of a foot (0.05') of rise in the flood elevation, the development shall not cause
22 greater than one foot (1.0') of rise in the FEMA-mapped flood fringe where no floodway has been
23 designated.

1 An exception to the above shall be permitted provided the applicant has acquired by
2 land rights purchase, flowage easement, or other legal arrangement the right to increase the flood
3 levels greater than one foot (1.0') on all affected lands, and provided that before any permit is issued
4 the applicant submits a Federal Emergency Management Agency (FEMA) approved Conditional
5 Letter of Map Revision to the Director of Building and Safety. When such encroachment is
6 completed, a FEMA approved Letter of Map Revision must also be provided by the applicant.

7 (c) The development of any land located within the floodplain or floodprone area except
8 as provided in Section 10.2 of the Flood Design Criteria, shall:

9 (1) Be accomplished in conformance with the Flood Design Criteria.

10 (2) Compensate for any flood storage lost by providing a hydrologically equivalent
11 volume of storage adjacent to the area of the encroachment.

12 (3) Compensate for flood storage lost below the existing 10 year water surface elevation
13 by providing storage below the proposed 10 year water surface elevation, and compensate for flood
14 storage lost above the existing 10 year water surface elevation with flood storage above the proposed
15 10-year water surface elevation.

16 (4) Cause no increase in peak flow rates in areas with a watershed master plan for the 2-,
17 10-, and 100-year flood events, as demonstrated using the hydrologic model from the watershed
18 master plan.

19 (5) Dedicate easements over areas of compensatory storage in conformance with Section
20 26.23.120.

21 (d) Along stream channels within a floodplain or floodprone area which have a defined
22 bed and bank or which have drainage areas exceeding 150 acres, development shall preserve a
23 Minimum Flood Corridor. Minimum corridor preservation and mitigation for allowed encroach-

1 ments into the corridor shall be in conformance with Section 10.3 of the Flood Design Criteria.
2 Easements shall be dedicated over minimum flood corridors in conformance with Section 26.23.120,
3 “Easements,” of the development standards for this title.

4 (e) The development of any land located within a floodplain or floodprone area will be
5 accomplished so as to protect building sites for residential development by raising of the ground
6 elevation to at least one foot above the 100-year flood. The raising of the ground elevation shall be
7 accomplished in such a manner that the general flow and storage of water is not unduly restricted
8 or limited and will not cause flood hazards to other lands and developments, either within the
9 proposed subdivision or otherwise, and that said protection shall be accomplished without creating
10 the need for significant public expenditures for flood control.

11 Prior to receiving building permits for residential development in the floodplain, the developer
12 must submit an approved LOMC from FEMA to remove the building sites from the FEMA-mapped
13 floodplain. Where building sites are outside the floodplain or floodprone area based upon a filed
14 survey of the natural elevation, the developer must submit individual lot surveys documenting the
15 elevation and filed surveys on individual lots with the register of deeds.

16 (f) The development of any land located within a floodplain or floodprone area will be
17 accomplished so as to protect building sites for non-residential development by raising of the ground
18 elevation to an elevation at least one foot above the 100-year flood or by floodproofing the structure
19 to an elevation at least one foot above the 100-year flood, in accordance with Chapter 27.53, “Flood
20 Regulations for New Growth Areas,” of the Zoning Code.

21 (g) Any proposed use which is located within a floodplain or floodprone area and is
22 subject to flooding shall be limited to such uses as open space, streets, and parking areas on that
23 portion of the land within the floodplain or floodprone area where significant damage to life and

1 property from flooding is most likely to occur. Any use approved to be located on land which is
2 included within a floodplain or floodprone area shall be approved only after the following factors
3 have been considered and any adverse impacts are mitigated to the satisfaction of the City.

4 (1) The danger to life and property by water which may be backed up or diverted by such
5 obstruction or land use;

6 (2) The danger that the obstruction or land use will be swept downstream to the injury of
7 others;

8 (3) The availability of alternate locations;

9 (4) The ability to construct or alter the obstruction in such a manner as to lessen any
10 danger;

11 (5) The permanence of the obstruction or land use;

12 (6) The anticipated development in the foreseeable future of the area in which the
13 proposed subdivision is to be located which may be affected by the obstruction or land use;

14 (7) The degree to which safe access can be provided through areas that are projected to
15 be flooded during a 100-year flood event.

16 (8) Any additional conditions adopted by the city to ensure proper use of the areas within
17 a floodplain or floodprone area.

18 (h) Any area within a floodplain or floodprone area from which fill is taken shall be
19 hydrologically designed and maintained to reduce the likelihood of becoming refilled by silt. The
20 subdivider must make arrangements satisfactory to the city binding his successors and assigns, to
21 regrade or remove such silt as is necessary to return any area to its approved design after flooding
22 has occurred. Any area from which fill is taken within a floodplain or floodprone area shall be at
23 a grade that will continue to permit adequate drainage into the stream or watercourse. If a water area

1 is to be maintained within the floodplain or floodprone area, consideration shall be given to the effect
2 the water area may have upon the flooding of both the land within the floodplain or floodprone area
3 and other lands outside of the floodplain or floodprone area.

4 (i) The location, grade, and flood-proofing of all proposed utilities which are to be
5 extended into or through any portion of the flood plain to serve the proposed development shall first
6 be approved by the city, prior to the extension of such utilities into the floodplain or floodprone area.

7 If the city, at the time of platting, agrees to create special assessment districts for the
8 construction of utilities to serve the subdivision, the subdivider shall remain responsible to pay the
9 entire cost of the necessary construction and necessary flood-proofing of such public utilities when
10 said utilities traverse any land subject to being inundated by flood water in order to serve the land
11 within the proposed subdivision. The subdivider shall also enter into an agreement with the City to
12 prohibit future connections to water mains and wastewater collectors to serve any land still subject
13 to being inundated by flood water.

14 The subdivider shall obtain the approval of the Director of Public Works and Utilities for any
15 modifications in the location or design of the borrow area within the floodplain or floodprone area.

16 Section 3. That Title 26 of the Lincoln Municipal Code be amended by adding a new
17 section numbered 26.25.030 to read as follows:

18 **26.25.030 Information on a Preliminary Plat.**

19 The following additional information shall be included with the preliminary plat in
20 conformance with the Flood Design Criteria if any part of the subdivision is within the floodplain
21 or floodprone area:

22 (a) All hydrological and grade information in NAVD 1988, including base flood elevation
23 data within Zone A (no base flood elevations determined), which is necessary to determine the

1 frequency and extent that the subdivision is subject to inundation by flood water, except that this
2 shall not apply where the use of the property is not being changed and there are no physical changes
3 on the site which have the potential to increase the flood hazard. When utilizing NGVD based flood
4 elevations from FEMA floodplain maps, 0.50 feet shall be added to NGVD 1929 to obtain NAVD
5 1988, unless a more accurate conversion factor using an established conversion program is
6 demonstrated to the satisfaction of the Director of Public Works and Utilities.

7 (b) All grading and drainage information in conformance with Section 26.15.020(b) of
8 this title.

9 (c) In Zone A (no base flood elevations determined), for subdivisions greater than either
10 five acres or fifty lots, detailed base flood elevation data based on an engineering study performed
11 by a qualified engineer in accordance with FEMA approved methods for generating detailed base
12 flood elevations. The specific hydrologic and hydraulic methods to be used to generate base flood
13 elevations and the data to be submitted are contained in Section 10.5 of the Flood Design Criteria.
14 Upon completion of said study, data must be submitted to FEMA to obtain a Letter of Map Change
15 based on the updated information. This provision shall not apply where the use of the property is
16 not being changed and where there are no physical changes on the site which have the potential to
17 increase the flood hazard.

18 (d) The type and extent of the proposed use or development of the land which is located
19 within the floodplain or floodprone area, along with such information as is necessary to determine
20 the effect flood waters will have on such development and use and the effect such development and
21 use may have upon the flood waters. All such information shall show the location of the proposed
22 use, areas of habitation and employment, including the location, size, and floor elevation of any

1 structures, the location and elevation of all parking areas, and the use, location, and elevations of all
2 open land areas.

3 (e) The proposed centerline grade of streets or private roadways located within the
4 floodplain or floodprone area that are necessary to serve the proposed development. The proposed
5 centerline grade shall not be more than one foot below the 50-year flood elevation.

6 (f) The limits of the 100-year floodplain or floodprone area, and floodway.

7 (g) The amount of fill material brought into the floodplain or floodprone area from outside
8 the floodplain or floodprone area, together with information demonstrating that compensatory
9 storage is being provided within the floodplain or floodprone area in conformance with the Flood
10 Design Criteria.

11 (h) Information, documentation and certification by a professional engineer or hydrologist
12 demonstrating any grading within the floodway will not result in any increase in the flood level
13 during the occurrence of the base flood discharge.

14 (i) Information, documentation and certification by a professional engineer or hydrologist
15 demonstrating the grading within the floodplain or floodprone area outside of the floodway will not
16 result in an increase in the flood level greater than five hundredths (0.05) of a foot during the occur-
17 rence of the base flood discharge.

18 Section 4. That Sections 1 through 3 of this ordinance be codified in the Lincoln
19 Municipal Code as Chapter 26.25, Flood Regulations for New Growth Areas.

20 Section 5. That this ordinance shall take effect and be in force from and after its
21 passage and publication according to law.

Introduced by:

Approved as to Form & Legality:

City Attorney

Approved this ___ day of _____, 2004:

Mayor